

Atty. Doc. No. SON-2139
(80001-2139)

Appl. No.: 09/875,021

IN THE CLAIMS

✓ Please cancel claims 1-5, 7-10 and 12 without prejudice or disclaimer of their underlying subject matter.

1-12. (Cancelled)

Please add the following new claims.

13. (New) A holographic stereogram exposure apparatus for exposing three-dimensional image information on a hologram recording medium to produce a holographic stereogram, said apparatus comprising:

21 spatial light modulation section having a plurality of portions in a parallax direction, a portion of said plurality of portions displaying an image of a plurality of images, each of said plurality of images corresponding to a respective element hologram;

an overlay projection optical system receiving a light beam that has passed through said plurality of portions and superposing said plurality of images displayed on said spatial light modulation section to form a superposed image of said plurality of images; and

a beam-condensing projection optical system condensing said superposed image in said parallax direction and separating said plurality of images from said condensed superposed image in said

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parallax direction, said plurality of images being separated from said condensed superposed image for recording onto said hologram recording medium.

14. (Re-presented, formerly claim #2) The holographic stereogram exposure apparatus according to claim 13, further including a reference beam optical system that projects a reference beam onto said hologram recording medium for interference with said plurality of images projected on said hologram recording medium.

15. (Re-presented, formerly claim #4) The holographic stereogram exposure apparatus according to claim 13, wherein said spatial light modulation section is divided into a horizontal direction.

16. (Re-presented, formerly claim #5) The holographic stereogram exposure apparatus according to claim 13, wherein said spatial light modulation section is divided into both vertical and horizontal directions.

17. (Re-presented, formerly claim #7) The holographic stereogram exposure apparatus according to claim 13, wherein said beam-condensing projection optical system projects said

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superposed image onto said hologram recording medium in a non-parallax direction.

18. (Re-presented, formerly claim #8) The holographic stereogram exposure apparatus according to claim 13, wherein said beam-condensing projection optical system uses a first-group lens and a second-group lens to guide said superposed image to a beam-condensing cylindrical lens.

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19. (Re-presented, formerly claim #9) The holographic stereogram exposure apparatus according to claim 18, wherein said beam-condensing projection optical system is provided with a correction lens between said first-group lens and said second-group lens for correcting unevenness of the angle of field for each element hologram on said hologram recording medium.

20. (New) The holographic stereogram exposure apparatus according to claim 13, wherein said separated plurality of images is simultaneously recorded onto said hologram recording medium.

21. (New) The holographic stereogram exposure apparatus according to claim 13, wherein said separated plurality of images is recorded onto said hologram recording medium in said parallax direction.

22. (New) A holographic stereogram generation system for recording three-dimensional image information on a hologram recording medium and generating a holographic stereogram, comprising:

an image generation system generating a plurality of images in a parallax direction, said image generation system including a spatial light modulation section having a plurality of portions in said parallax direction, a portion of said plurality of portions displaying an image of said plurality of images, each of said plurality of images corresponding to a respective element hologram;

an overlay projection optical system receiving a light beam that has passed through said plurality of portions and superposing said plurality of images displayed on said spatial light modulation section to form a superposed image of said plurality of images; and

a beam-condensing projection optical system condensing said superposed image in said parallax direction and separating said plurality of images from said condensed superposed image in said parallax direction, said plurality of images being separated from said condensed superposed image for recording onto said hologram recording medium.

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23. (New) The holographic stereogram generation system according to claim 22, wherein said separated plurality of images is simultaneously recorded onto said hologram recording medium.

24. (New) The holographic stereogram generation system according to claim 22, wherein said separated plurality of images is recorded onto said hologram recording medium in said parallax direction.

25. (New) A holographic stereogram exposure method of exposing three-dimensional image information onto a hologram recording medium to produce a holographic stereogram, said method comprising:

displaying a plurality of images in a parallax direction, each of said plurality of images corresponding to a respective element hologram;

forming a plurality of divided light beams, a divided light beam of said plurality of divided light beams being a light beam passed through a image of said displayed plurality of images;

superposing said plurality of divided light beams to form a superposed image of said displayed plurality of images;

condensing said superposed image in said parallax direction;

separating said condensed superposed image into said plurality of images, said plurality of images being separated in said parallax direction; and

recording said separated plurality of images onto said
hologram recording medium.

26. (New) A holographic stereogram exposure method of claim
25, wherein said separated plurality of images is simultaneously
recorded onto said hologram recording medium.

27. (New) A holographic stereogram exposure method of claim
25, wherein said separated plurality of images is recorded onto
said hologram recording medium in said parallax direction.

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